



## Case Study

# TRANSFORMING DATA MANAGEMENT FOR MULTI-REGION EC2-LINUX VMS WITH AWS EFS AND DATASYNC

## Company Profile

VdoCipher, dedicated to providing a secure platform for high-quality content sharing, serves over 1500 customers in 30+ countries. Recognized by Streaming Media Magazine as the top DRM video security provider in Europe, VdoCipher offers Hollywood-grade security and functionality to video content creators, particularly in education and media. Their innovative solutions empower creators worldwide, fostering a space where quality content thrives, and contributors are recognized.

## Case Summary

VdoCipher, a pioneering provider of modern video technology solutions for education and media businesses, faced a challenge in efficiently managing storage. Earlier, they managed videos on the on-premises servers, accessed by users across different regions, mainly India and Singapore.

Their storage requirements included configuration files, documentation, video files, and files in various formats such as dash, AVC, HEVC, etc., along with essential business software. Users also need to use a common video file for metadata generation using the Metagen application, an in-house custom application managed by the client. The users across regions needed to use the same video file via the Metagen app. They had 3 batches in which different types of users would operate. The metadata creators would reside in the India region, whereas the reviewers were in the Singapore region. Hence, a requirement to sync the data across regions was required three times a day.

Driven by a vision to create an internet space abundant in quality content and secure sharing, VdoCipher sought to overcome the complexities obstructing centralized storage management. In search of a robust, scalable, and easily manageable solution, they turned to AceCloud for guidance.

The data size was 100 to 200 GB of video content and metadata per day, which was curated. The customer was moving to a cloud-based solution on AWS for users to curate the content. AWS EC2 machines were required to host the Metagen web applications and had to have a disk connected to read the video files. The client had chosen to go with EBS to store the video files, which created multiple challenges.

## Challenges

- There is an absence of a centralized storage solution where users can use the same video and metadata files.
- Challenges faced by Singapore users in accessing the videos.

- Ability to transfer files across regions for users to access.
- Operational maintenance and manual transfer of data.
- Ability to scale the storage to any number of machines/users with centralized disk storage.

## Solutions Deployed

Understanding VdoCipher's vision and requirements for a robust and scalable solution for centralized storage management, AceCloud deployed **Amazon Elastic File System (EFS) and AWS DataSync**.

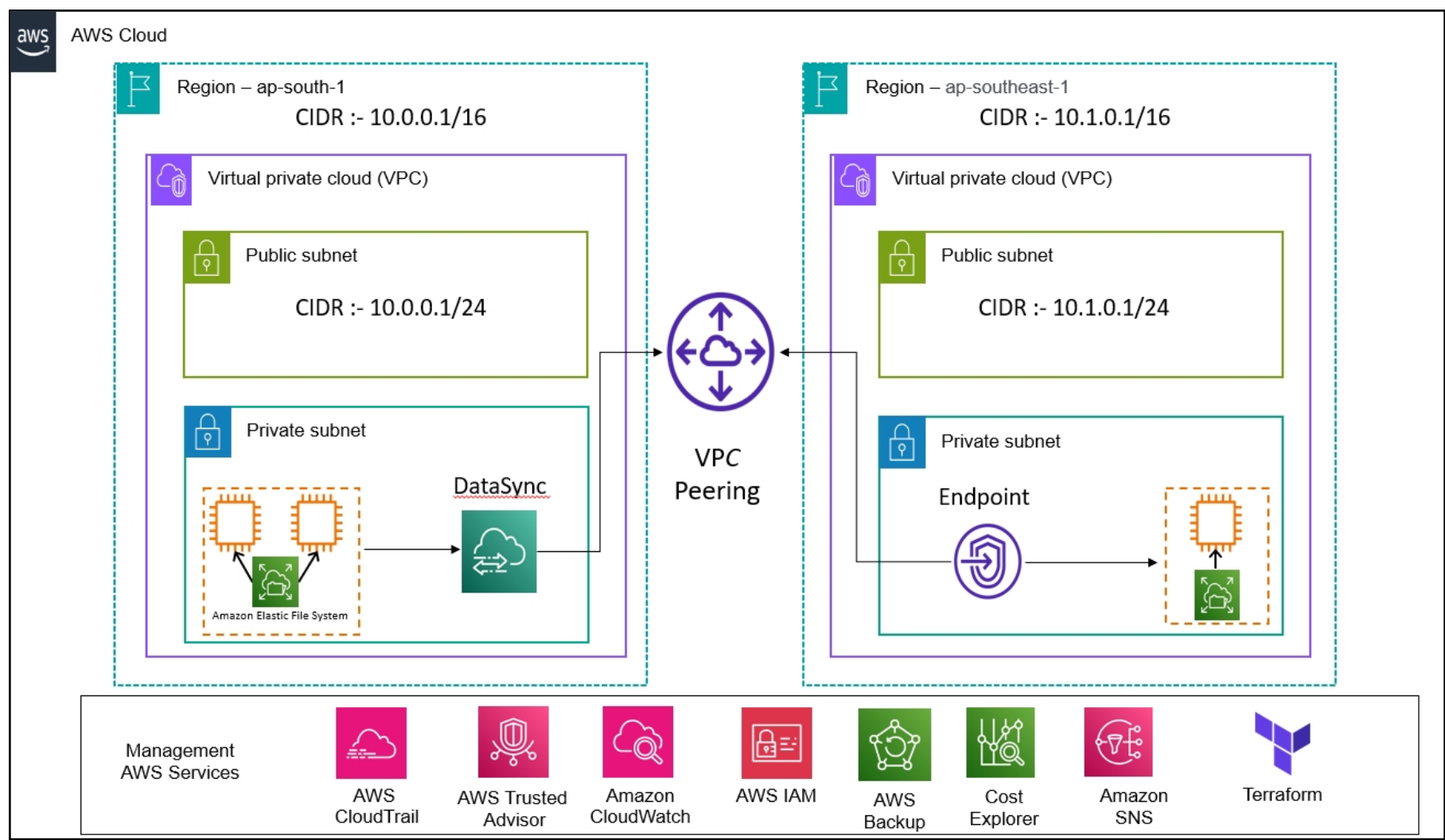
Users used EC2-Linux hosted machines (VMs). They were hosting applications in multiple regions, including the following:

- **ap-south-1 (Mumbai)**
- **ap-southeast-1 (Singapore)**

## Key Deployment Steps Included:


- Hosting the video application on **EC2-Linux** instances in two regions: Mumbai (ap-south-1) and Singapore (ap-southeast-1).
- Implementing **AWS DataSync** to automate and expedite the daily synchronization of data between Mumbai and Singapore EFS instances, ensuring timely, secure transfers.
- Configuring three daily DataSync tasks to update files between regions after each user batch completes its operations.

# Architecture Diagram



**AWS EFS** was adopted as the primary storage option for storing VdoCipher business data. This storage system will enable VdoCipher to dynamically scale storage capacity, ensuring optimal resource utilization and cost-effectiveness.

## AWS Services Used



**AWS DataSync**



**Amazon Elastic File System (EFS)**

## THE DECISION TO USE AMAZON SERVICES WAS BASED ON THE FOLLOWING FACTORS:

- **Multi-AZ Accessibility:** EFS is designed to be accessed by multiple EC2 instances across different availability zones within the same region. This regional service allows easy mounting in various availability zones.
- **Shared File System:** EFS provides a fully managed shared file system, enabling multiple EC2 instances to access the same data simultaneously. This is particularly useful for applications that require shared access to a common dataset.
- **Scalability:** Amazon EFS offers flexibility in scaling resources based on the organization's changing requirements. It also ensures 99.999999999% (11 9s) data durability, meeting high-reliability needs.
- **Fully Managed Service:** Since EFS is fully managed by AWS, the underlying infrastructure, maintenance, and updates are handled by AWS, reducing the operational burden of managing storage.

## Conclusion

By leveraging **AWS EFS** and **AWS DataSync**, VdoCipher achieved significant improvements in storage management, streamlining their operations. The deployment reduced infrastructure maintenance by 1100 manhours monthly, cut storage costs by 12%, and enabled seamless collaboration between users in different regions. These improvements allowed VdoCipher to focus on their mission of delivering secure, high-quality video content without being burdened by storage management complexities.

## About Us



Years of Exp

**15+**



Data Center

**10+**



Awards

**100+**

AceCloud is a leading provider of end-to-end cloud computing solutions to global organizations across industries at scale. It offers a full spectrum of cloud services, including Public Cloud, Application Hosting, AWS Services, Managed Security Services, and Hosted Virtual Desktop Solutions.

AceCloud is a brand of [Real Time Data Services](#) (RTDS) group of companies - a leading provider of information technology capabilities specializing in Cloud Computing and Cloud Telephony. RTDS Group has an employee base of 600+ across India, the US, and the UK, supporting over 20,000+ customers and IT infrastructure in 10+ data centers spanning the globe. It offers industry-leading technological solutions that help customers streamline their operations and enhance efficiency.

As an advanced consulting and certified AWS Well-Architected Partner, AceCloud recently achieved the prestigious AWS Storage Competency and is also recognized as an Amazon RDS Service Delivery Partner. These achievements underscore its deep expertise in AWS technologies and commitment to delivering high-quality cloud solutions.



- Public Sector
- Amazon RDS Delivery
- Storage Services Competency
- Well-Architected Partner Program



## Contact Us

Are you ready to cut down your cloud spending? Contact AceCloud Experts today to get a customized quote.



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